

BLUE ROCK
ENVIRONMENTAL, INC.

FILE COPY

Ms. Kasey Ashley
NCRWQCB
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

July 13, 2005

**Re: Third Quarter 2005 Groundwater Monitoring Report
Former Beaver Lumber Company
1220 Fifth Street, Arcata, CA
NCRWQCB Case No. 1NHU001
Blue Rock Project No. NC-1**

Dear Ms. Ashley,

This report presents the results of the third quarter 2005 groundwater monitoring activities at 1220 Fifth Street, Arcata, Humboldt County, California (site) (Figure 1), and was prepared for Mr. Bradford C. Floyd by Blue Rock Environmental, Inc. (Blue Rock).

Background

Site Description

The site is located at the western end of Fifth Street, between State Highway 255 and the railroad tracks, in the town of Arcata, California (Figure 1). The site consists of a metal framed building surrounded by asphalt pavement and gravel surfacing (Figure 2). The site is surrounded by industrial, commercial, agricultural, and residential properties. Prior to the construction of the waste transfer station and truck scale, the site was paved with asphalt and used as a log deck for the former adjacent saw mill.

Site History

In September 1998, approximately 1,200 cubic yards of sand and gravel fill material and 3,500 cubic yards of silty clay soil were excavated from the site to facilitate the construction of a waste transfer station. Kernen Construction Company (Kernen) removed site soils from ground surface to 4 feet below ground surface (bgs) in the two excavation locations shown in Figure 2. Engineered fill was then placed in these locations to meet building code requirements. The excavated soil was stockpiled on asphalt near the excavation. The soils were scheduled to be hauled to Cummings Road Landfill in Eureka, California to be used as cover soil.

On September 9, 1998, trucks containing site soils were turned away from the Cummings Road Landfill because the site supervisor observed that the soil appeared dark and had an oily smell. The soil was then hauled to Kernen's construction facility in Glendale, California for temporary storage.

In a September 16, 1998 letter, the City Garbage Company of Eureka informed the Humboldt County Division of Environmental Health (HCDEH) that soils from the site were refused and appeared to have an oily smell.

On September 22, 1998, Kernen collected four soil samples from the soil stockpile. These samples (1, 2, 3, and 4) were analyzed for total petroleum hydrocarbons as diesel (TPHd) and sample 3 was also analyzed for hydrocarbon oil and grease (O&G). Low levels of TPHd and O&G were detected in these samples. These laboratory results were forwarded to the HCDEH.

On October 6, 1998, the Humboldt Solid Waste Management Authority (HCWMA), which was leasing the site, and the HCDEH had a meeting to discuss the disposition of the soil stockpiled at Kernen's facility.

In a letter dated October 9, 1998, the HCDEH informed the HCWMA of options for handling the soils.

On October 13, 1998, Winzler and Kelly collected six soil samples (5, 6, 7, 8, 9, and 10) from the stockpiled soil for disposal profiling.

In December 1998, the NCRWQCB authorized the HCWMA to bioremediate site soils on an asphalt paved portion of the Humboldt County Road Department lease property located on the eastern edge of the Arcata Airport.

In a letter dated July 5, 2000, the NCRWQCB sent a reminder request to the HCWMA for the necessary submittal a report of waste discharge and final disposal plan.

In a letter dated December 29, 2000, the NCRWQCB requested the property owner to prepare a workplan to determine the extent soil contamination and if groundwater has been impacted in reference to the locations of excavated soils.

On March 19, 2003, Clearwater Group (Clearwater) reviewed aerial photos of the site from 1996 and interviewed the site contractor that performed the soil excavation activities. Clearwater interpreted aerial photos from 1996 to indicate that the site was previously used as a log deck and storage of heavy equipment and machinery. The site contractor indicated that the site prior to construction contained scattered wood waste on top of asphalt surfacing and below the asphalt consisted of sand and gravel fill from below asphalt to approximately 1 foot bgs and gray silty clay from 1 foot bgs to total excavated depth of 4 feet bgs. Soil was excavated 5 feet beyond the footprint of the buildings shown in Figure 2.

Clearwater submitted a *Preliminary Site Investigation Workplan*, dated March 31, 2003, to the NCRWQCB. The workplan proposed to evaluate the extent of petroleum hydrocarbon contamination in subsurface soil and groundwater peripheral to the two "September 1998" soil excavation areas (Figure 2). The workplan proposed to complete the investigation through the

installation of five shallow soil borings with the collection of grab groundwater samples. This workplan was approved by the NCRWQCB in a letter dated May 13, 2003.

On June 12, 2003, Clearwater supervised the advancement of five soil borings associated with the subject property: SB-1 through SB-5 (Figure 2). These soil borings were placed in locations to assess the sorbed-phase hydrocarbon contamination associated with the site. Grab groundwater samples were collected from each boring to evaluate dissolved-phase hydrocarbon contamination associated with the site. These borings were advanced to 15 feet bgs. Based on soil stockpile analytical results and area of excavation, Clearwater calculated that approximately 395 gallons of motor oil was removed from the site in 1998. Results of this investigation are presented in Clearwater's *Preliminary Site Investigation Report*, dated August 11, 2003. The NCRWQCB commented on this *Report* in a site correspondence letter dated August 28, 2003, requesting preparation of a Workplan to define the extent of contamination and requesting lower detection limits for TPHmo. Clearwater had the laboratory revise the laboratory report to reflect the requested detection limit for TPHmo in groundwater samples collected on June 12, 2003.

Clearwater submitted a *Workplan for Additional Investigation*, dated September 29, 2003, to the NCRWQCB. The *Workplan* proposed the installation of four groundwater monitoring wells proximal to soil boring SB-2 to evaluate hydrocarbon distribution and establish a groundwater gradient and flow direction. This *Workplan* was approved with comments by the NCRWQCB in a letter dated October 31, 2003.

On January 10, 2005, Blue Rock supervised the installation of four monitoring wells associated with the subject site: MW-1 to MW-4 (Figure 2). These monitoring wells were placed in locations to assess the hydrocarbon contamination and establish a groundwater gradient associated with the site. These borings were advanced to 15 feet bgs.

Groundwater Monitoring Field and Laboratory Activities

Groundwater Monitoring Activities

On May 16, June 15, and July 5, 2005, all four wells (MW-1 through MW-4) were gauged and samples were collected on July 5, 2005.

Prior to sampling, an electronic water level indicator was used to gauge depth to water in each well, accurate to within ± 0.01 -foot. All wells were checked for the presence of light non-aqueous phase liquid (LNAPL) petroleum prior to purging. No measurable thicknesses of LNAPL were observed on groundwater in any of the wells.

In preparation for sampling, the wells were purged of groundwater until sampling parameters (temperature, pH, and conductivity) stabilized.

Following recovery of water levels to at least 80% of their static levels in the other wells, groundwater samples were collected from the wells using disposable polyethylene bailers and

transferred to laboratory supplied containers. Sample containers were labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Purging instruments were cleaned between use by an Alconox[®] wash followed by double rinse in clean tap water to prevent cross-contamination. Purge and rinse water was stored on-site in labeled 55-gallon drums pending future removal and disposal.

Groundwater monitoring and well purging information is presented on Gauge Data/Purge Calculations and Purge Data sheets (attached).

Groundwater Sample Analyses

Groundwater samples were analyzed by Kiff Analytical (Kiff), a DHS-certified laboratory, located in Davis, California, for the following analytes:

- TPHmo by EPA Method 8015M with silica gel cleanup.
- TPHd by EPA Method 8015M with silica gel cleanup.
- BTEX by EPA Method 8260B.

Groundwater Monitoring Results

Groundwater Flow Direction and Gradients

On May 16, 2005, static groundwater in the wells was present beneath the site at depths ranging from approximately 2.30 (MW-3) to 4.34 (MW-4) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevation, and to generate a groundwater elevation and gradient map. The groundwater flow direction was calculated to be toward the south at a gradient of 0.01 ft/ft (Figure 3a).

On June 15, 2005, static groundwater in the wells was present beneath the site at depths ranging from approximately 2.80 (MW-3) to 4.64 (MW-4) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevation, and to generate a groundwater elevation and gradient map. The groundwater flow direction was calculated to be toward the south at a gradient of 0.0053 ft/ft (Figure 3b).

On July 5, 2005, Static groundwater in the wells was present beneath the site at depths ranging from approximately 3.00 (MW-3) to 4.74 (MW-4) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevation, and to generate a groundwater elevation and gradient map. The groundwater flow direction was calculated to be toward the south at a gradient of 0.0023 ft/ft (Figure 3c).

Groundwater Contaminant Analytical Results

LNAPL: None
TPHmo concentration: <100 micrograms per liter ($\mu\text{g/L}$) (MW-3) to 540 $\mu\text{g/L}$ (MW-4)
TPHd concentration: <50 $\mu\text{g/L}$ (MW-1, MW-2, MW-3) to 110 $\mu\text{g/L}$ (MW-4)
Benzene concentration: <0.50 $\mu\text{g/L}$ (MW-1, MW-2, MW-3, and MW-4)

Groundwater sample analytical results are shown graphically on Figure 4, and groundwater sample analytical results are summarized in Table 1. Well construction details are summarized in Table 2. Copies of the laboratory report and chain-of-custody form are attached.

Remarks

Groundwater sample analytical results are similar to previous sample results. Concentrations of TPHd are footnoted by the laboratory as non-typical of diesel and have a higher boiling point, suggesting that they are an overlap of TPHmo concentrations detected.

Project Status

- The site is currently being monitored on a monthly and quarterly basis per the NCRWQCB directives. Depth to water measurements will be collected monthly and groundwater gradient maps will be included in the next quarterly monitoring report. The next quarterly sampling event is scheduled for October 2005. Groundwater samples will be analyzed for TPHmo, TPHd, and BTEX.

Certification

This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact us at (707) 441-1934.

Sincerely,
Blue Rock Environmental, Inc.

Prepared by:

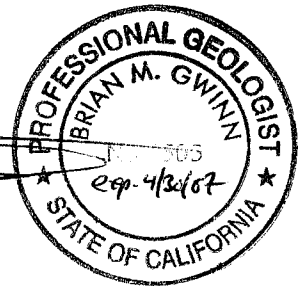


Scott Ferriman
Project Scientist

Reviewed by:



Brian Gwinn, PG
Principal Geologist



Attachments:

Table 1: Groundwater Elevations and Analytical Results

Table 2: Well Construction Details

Figure 1: Site Location Map

Figure 2: Site Plan

Figure 3a: Groundwater Elevations and Gradient – 5/16/05

Figure 3b: Groundwater Elevations and Gradient – 6/15/05

Figure 3c: Groundwater Elevations and Gradient – 7/5/05

Figure 4: Dissolved-Phase Hydrocarbon Distribution – 7/5/05

Blue Rock's Gauge/Purge Calculations and Well Purging Data Field Sheets

Laboratory Analytical Reports and Chain-of-Custody Form

Distribution:

Mr. Bradford C. Floyd
819 Seventh Street
Eureka, CA 95501

Table 1
GROUNDWATER ELEVATIONS AND
ANALYTICAL RESULTS

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California
Blue Rock Project No. NC-1

Sample ID	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHmo (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
SB-1	6/12/03	--	--	--	<175	<50	<0.5	<0.5	<0.5	<1
SB-2	6/12/03	--	--	--	4,000	<200	<0.5	<0.5	<0.5	<1
SB-3	6/12/03	--	--	--	<175	<50	<0.5	<0.5	<0.5	<1
SB-4	6/12/03	--	--	--	<175	<50	<0.5	<0.5	<0.5	<1
SB-5	6/12/03	--	--	--	<175	<50	<0.5	<0.5	<0.5	<1
MW-1	1/17/05	13.22	4.03	9.19	280*	86*	<0.5	<0.5	<0.5	<0.5
	2/7/05	13.22	3.96	9.26	--	--	--	--	--	--
	3/10/05	13.22	4.00	9.22	--	--	--	--	--	--
	4/19/05	13.22	3.81	9.41	390*	73*	<0.5	<0.5	<0.5	<0.5
	5/16/05	13.22	3.75	9.47	--	--	--	--	--	--
	6/15/05	13.22	4.06	9.16	--	--	--	--	--	--
	7/5/05	13.22	4.14	9.08	170*	<50*	<0.5	<0.5	<0.5	<0.5
MW-2	1/17/05	12.73	3.54	9.19	210*	60*	<0.5	<0.5	<0.5	<0.5
	2/7/05	12.73	3.48	9.25	--	--	--	--	--	--
	3/10/05	12.73	3.52	9.21	--	--	--	--	--	--
	4/19/05	12.73	3.33	9.40	<100*	<50*	<0.5	<0.5	<0.5	<0.5
	5/16/05	12.73	3.26	9.47	--	--	--	--	--	--
	6/15/05	12.73	3.58	9.15	--	--	--	--	--	--
	7/5/05	12.73	3.67	9.06	220*	<50*	<0.5	<0.5	<0.5	<0.5
MW-3	1/17/05	12.17	2.77	9.40	<100*	<50*	<0.5	<0.5	<0.5	<0.5
	2/7/05	12.17	2.83	9.34	--	--	--	--	--	--
	3/10/05	12.17	2.75	9.42	--	--	--	--	--	--
	4/19/05	12.17	2.37	9.80	<100*	<50*	<0.5	<0.5	<0.5	<0.5
	5/16/05	12.17	2.30	9.87	--	--	--	--	--	--
	6/15/05	12.17	2.80	9.37	--	--	--	--	--	--
	7/5/05	12.17	3.00	9.17	<100*	<50*	<0.5	<0.5	<0.5	<0.5

Table 1
GROUNDWATER ELEVATIONS AND
ANALYTICAL RESULTS

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California
Blue Rock Project No. NC-1

Sample ID	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHmo (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
MW-4	1/17/05	13.80	4.62	9.18	430*	99*	<0.5	<0.5	<0.5	<0.5
	2/7/05	13.80	4.55	9.25	--	--	--	--	--	--
	3/10/05	13.80	4.57	9.23	--	--	--	--	--	--
	4/19/05	13.80	4.39	9.41	<100*	<50*	<0.5	<0.5	<0.5	<0.5
	5/16/05	13.80	4.34	9.46	--	--	--	--	--	--
	6/15/05	13.80	4.64	9.16	--	--	--	--	--	--
	7/5/05	13.80	4.74	9.06	540*	110*	<0.5	<0.5	<0.5	<0.5
MCL					--	--	1	150	300	1,750
Taste & odor threshold					--	100	--	42	29	17
Cleanup Goals					175	100	0.5	42	29	17

Notes :

TOC: Top of casing referenced to feet above mean sea level (msl).

DTW: Depth to water as referenced to top of well casing.

GWE: Groundwater elevation as referenced to established benchmark.

TPHmo: Total Petroelum Hydrocarbons as motor oil by EPA Method 3510/8015M (* indicates silica gel cleanup).

TPHd: Total Petroelum Hydrocarbons as diesel by EPA Method 3510/8015M (* indicates silica gel cleanup).

BTEX: Benzene, toluene, ethylbenzene, and xylenes by EPA method 8020 and 8260B.

µg/L: micrograms per liter = ppb = parts per billion

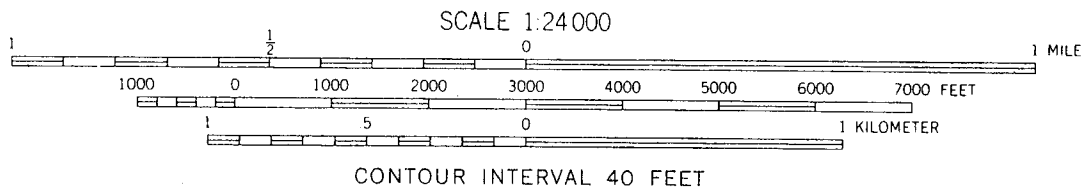
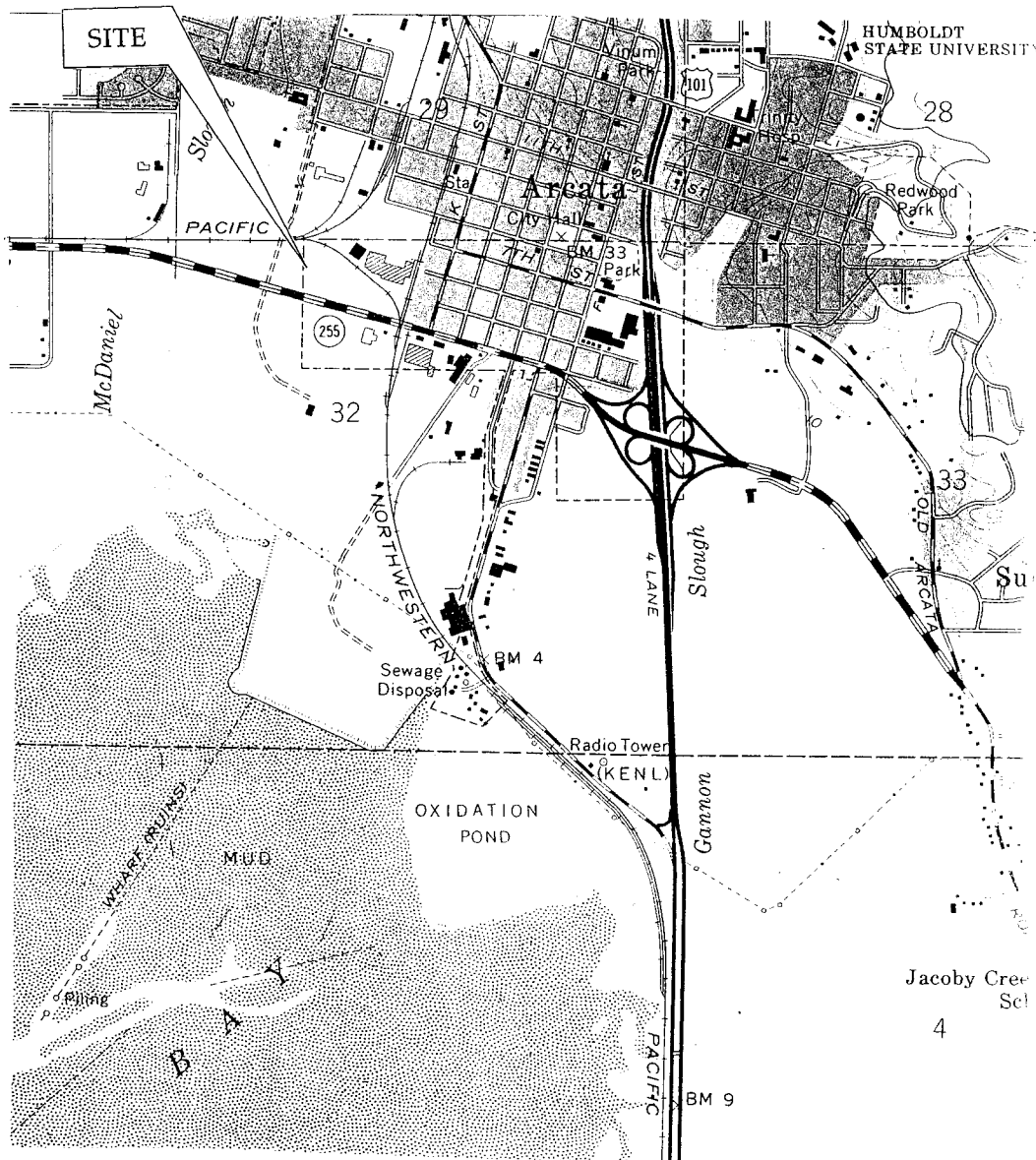
"--": Not analyzed, available, or applicable

MCL: Maximum contaminant level, a Federal drinking water standard based on health, technology and economics.

Taste & odor threshold: A drinking water standard

Table 2
WELL CONSTRUCTION DETAILS
Former Beaver Lumber Company
1220 Fifth Street
Arcata, California
Blue Rock Project No. NC-1

Well Identification	Date Installed	Installed by	Casing Diameter (inches)	Total Depth (feet)	Blank Interval (feet)	Screened Interval (feet)	Slot Size (inches)	Filter Pack (feet)	Bentonite Seal (feet)	Cement (feet)
MW-1	1/10/05	Blue Rock	2	15	0-3	3-15	0.01	2-15	1-2	0-1
MW-2	1/10/05	Blue Rock	2	15	0-3	3-15	0.01	2-15	1-2	0-1
MW-3	1/10/05	Blue Rock	2	15	0-3	3-15	0.01	2-15	1-2	0-1
MW-4	1/10/05	Blue Rock	2	15	0-3	3-15	0.01	2-15	1-2	0-1

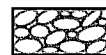


MAP SOURCE: USGS Arcata South, CA
Quadrangle



Site Location Map

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

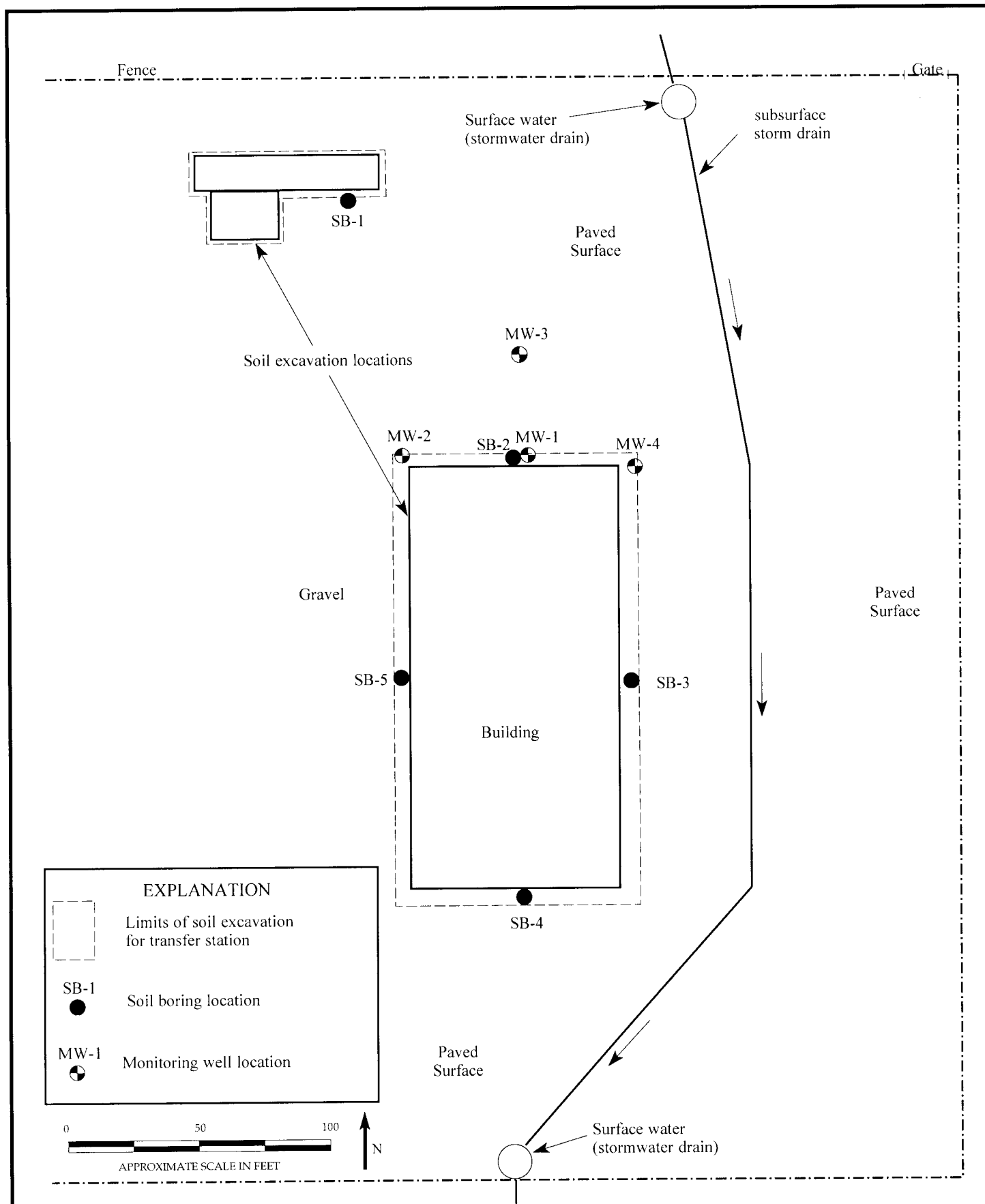


BLUE ROCK
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Project No.
NC-1

Date
1/05

Figure
1



Site Plan

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

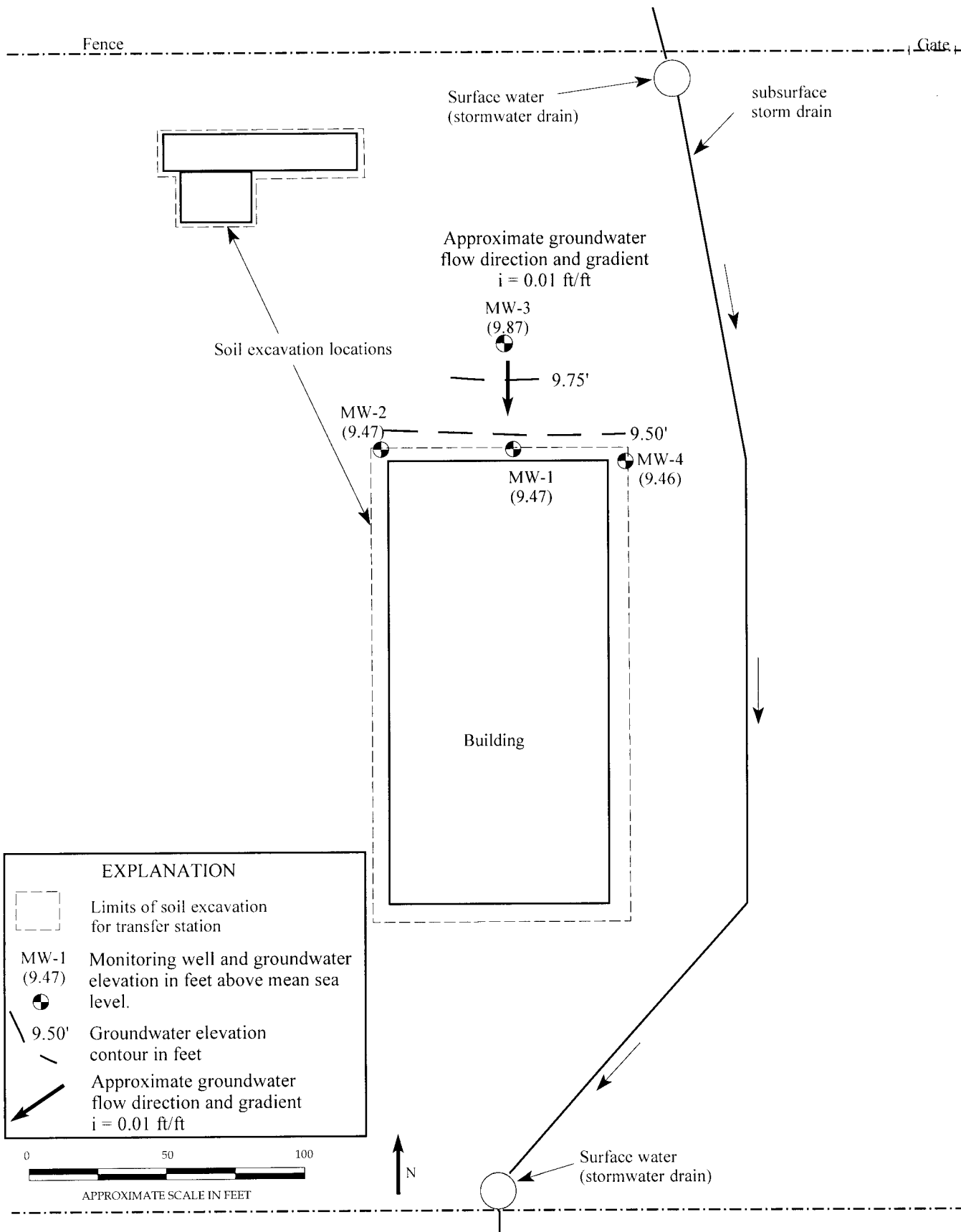


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Project No.
NC-1

Report Date
7/05

Figure
2



Groundwater Elevations and Gradient - 5/16/05

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

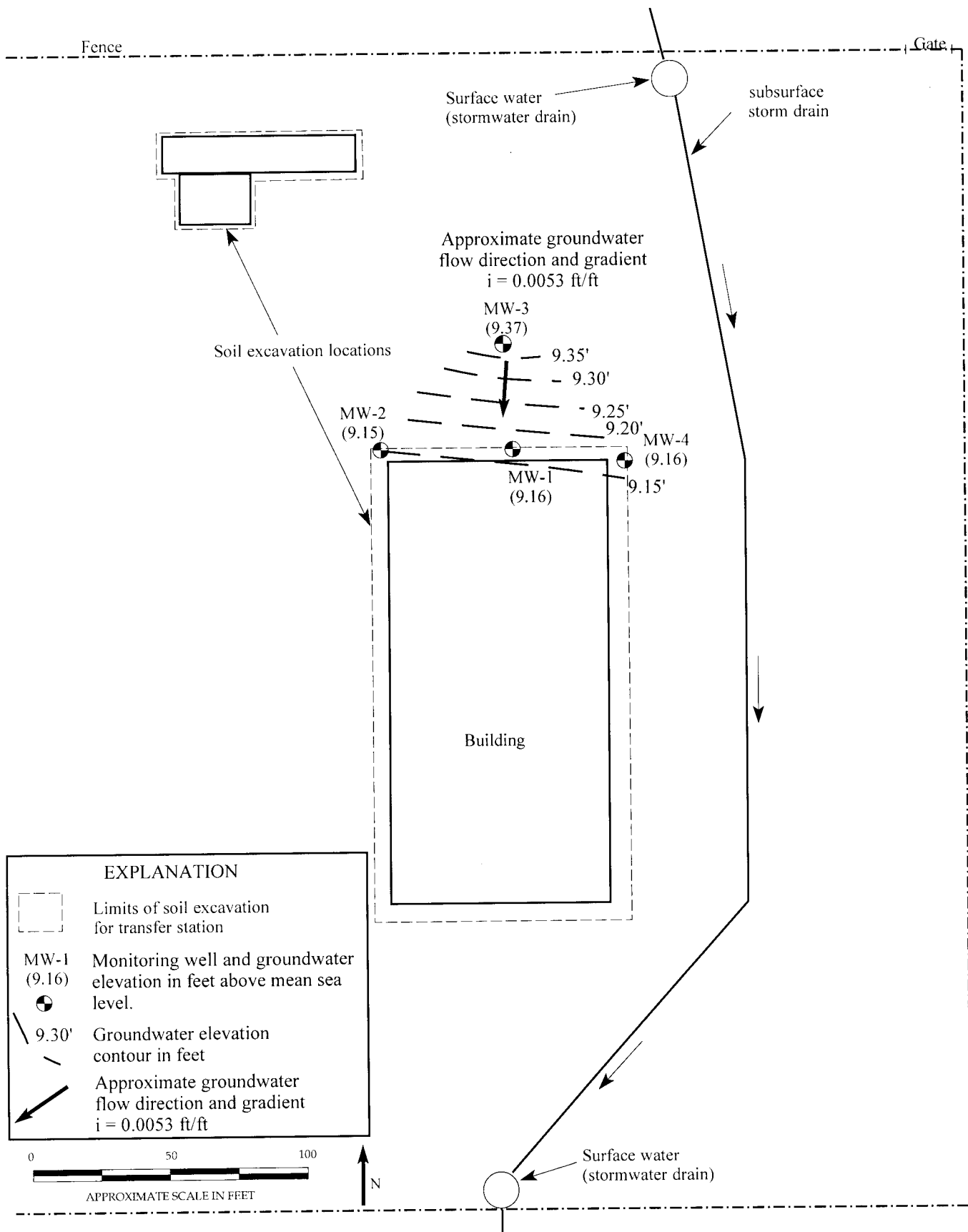


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Project No.
NC-1

Report Date
7/05

Figure
3a



Groundwater Elevations and Gradient - 6/15/05

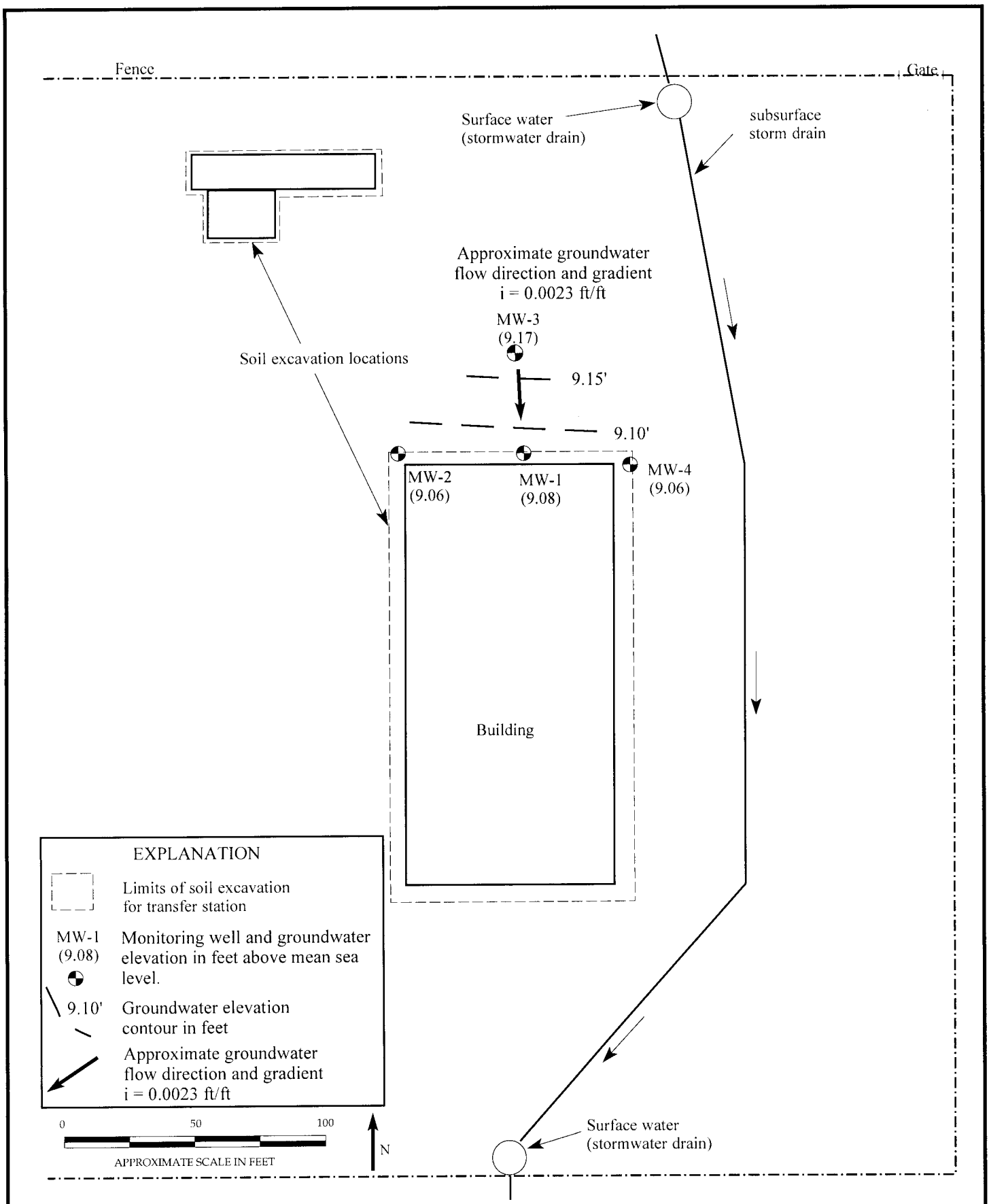
Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

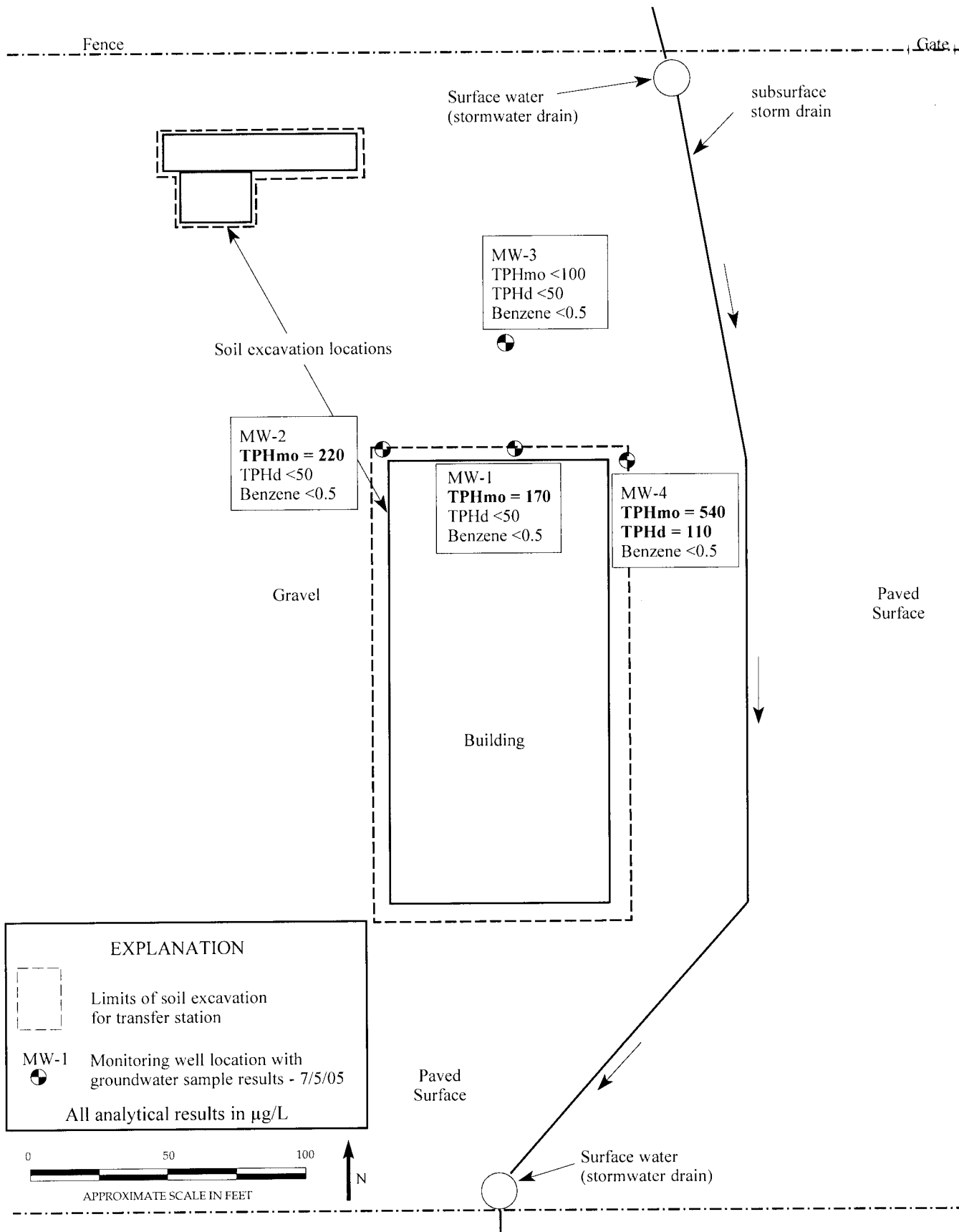
BLUE ROCK
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Project No.
NC-1

Report Date
7/05

Figure
3b





Dissolved-Phase Hydrocarbon Distribution - 7/5/05

Former Beaver Lumber Company
1220 Fifth Street
Arcata, California

BLUE ROCK
ENVIRONMENTAL, INC.

Project No.
NC-1

Report Date
7/05

Figure
4

GAGING DATA/PURGE CALCULATIONS

Job No.: NC-1 Location: 1220 Fifth St. Arcata Date: 5/16/05 Tech(s): J.L.

[illegible]

Explanation:

DIA. = Well Diameter

DTB = Depth to Bottom

DTW = Depth to Water

ST = Saturated Thickness (DTB-DTW)

CV = Casing Volume (ST x cf)

PV = Purge Volume (standard 3 x CV,
well development 10 x CV)

SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):

2 in. dia. well cf = 0.16 gal./ft.

4 in. dia. well cf = 0.65 gal./ft.

6 in. dia. well cf = 1.44 gal./ft.



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GAGING DATA/PURGE CALCULATIONS

Job No.: NC-1 Location: 1220 5TH St. Arcata Date: 6/15/05 Tech(s): JL

[illegible]

Explanation:

DIA. = Well Diameter

DTB = Depth to Bottom

DTW = Depth to Water

ST = Saturated Thickness (DTB-DTW)

CV = Casing Volume (ST x cf)

PV = Purge Volume (standard 3 x CV,
well development 10 x CV)

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BLUE ROCK
ENVIRONMENTAL, INC.

GAGING DATA/PURGE CALCULATIONS

Job No.: NC-1 Location: 1220 5TH St. Aventura CA Date: 7/5/05 Tech(s): JL

[illegible]

Explanation:

DIA. = Well Diameter

DTB = Depth to Bottom

DTW = Depth to Water

ST = Saturated Thickness (DTB-DTW)

CV = Casing Volume (ST x cf)

PV = Purge Volume (standard 3 x CV,
well development 10 x CV)

SPH = Thickness of Separate Phase Hydrocarbons

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4 in. dia. well cf = 0.65 gal./ft.

6 in. dia. well cf = 1.44 gal./ft.



BLUE ROCK
ENVIRONMENTAL, INC.

PURGING DATA

SHEET

OF

1 OF 2

Job No.: NC-1

Location: 1220 5TH ST Area

Date:

7/5/05

Tech:

JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-1			---	---	---	Sample for: TPH mo
Calc. purge	11:05	0.50	1041	56.7	5.13	TPHg TPHd 8260
volume	11:10	3.20	964	56.4	5.53	BTEX MTBE Metals
5.19	11:15	5.20	1018	56.8	5.35	Purging Method:
						PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen						Sampling Method:
clear/mod/mod, no sheen/odor						Dedicated / Disposable bailer
						Sample at: 11:20

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-2			---	---	---	Sample for: TPH mo
Calc. purge	10:05	0.50	583	66.9	5.74	TPHg TPHd 8260
volume	10:10	3.00	608	66.7	6.08	BTEX MTBE Metals
5.43	10:15	5.50	632	67.1	6.32	Purging Method:
						PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen						Sampling Method:
clear/mod./good to mod./no sheen/no odor						Dedicated / Disposable bailer
						Sample at: 10:20

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-3			---	---	---	Sample for: TPH mo
Calc. purge	10:45	0.75	1604	66.8	6.07	TPHg TPHd 8260
volume	10:50	3.50	1717	63.5	5.12	BTEX MTBE Metals
5.76	10:55	5.75	1548	62.6	5.42	Purging Method:
						PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen						Sampling Method:
clear/mod./mod./no sheen/fertilizer smell						Dedicated / Disposable bailer
						Sample at: 11:00

PURGING DATA

SHEET 2 OF 2

Job No.: NC-1 Location: 12205TH St. Area Date: 7/5/05 Tech: JL

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
<u>MW-4</u>			---	---	---	Sample for: <u>TPH_{mo}</u>
Calc. purge volume <u>4.92</u>	<u>10:25</u>	<u>0.5</u>	<u>1249</u>	<u>66.1</u>	<u>6.12</u>	TPHg <u>TPHd</u> 8260
	<u>10:30</u>	<u>24.75</u>	<u>1333</u>	<u>65.8</u>	<u>5.73</u>	BTEX MTBE Metals
	<u>10:35</u>	<u>5.0</u>	<u>1327</u>	<u>65.7</u>	<u>5.43</u>	Purging Method: <u>PVC bailer</u> / Pump
COMMENTS: color, turbidity, recharge, sheen <u>clear / mod. / mod. / no sheen / no odor</u>						Sampling Method: Dedicated / <u>Disposable bailer</u>

Sample at: 10:40

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
			---	---	---	Sample for:
Calc. purge volume						TPHg TPHd 8260
						BTEX MTBE Metals
						Purging Method: PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen <div style="border: 1px solid black; height: 20px; width: 100%;"></div>						Sampling Method: Dedicated / Disposable bailer

Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
			---	---	---	Sample for:
Calc. purge volume						TPHg TPHd 8260
						BTEX MTBE Metals
						Purging Method: PVC bailer / Pump
COMMENTS: color, turbidity, recharge, sheen <div style="border: 1px solid black; height: 20px; width: 100%;"></div>						Sampling Method: Dedicated / Disposable bailer

Sample at:



Report Number : 44646

Date : 7/11/2005

Scott Ferriman
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 4 Water Samples
Project Name : Beaver Lumber
Project Number : NC-1

Dear Mr. Ferriman,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff", is written over a horizontal line.

Joel Kiff



Report Number : 44646

Date : 7/11/2005

Subject : 4 Water Samples
Project Name : Beaver Lumber
Project Number : NC-1

Case Narrative

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for sample MW-4. These hydrocarbons are higher boiling than typical diesel fuel.

Approved By: _____

A handwritten signature in black ink, appearing to read "Joel Kiff", is written over a horizontal line. Below the signature, the name "Joel Kiff" is printed in a black sans-serif font.



Report Number : 44646

Date : 7/11/2005

Project Name : **Beaver Lumber**Project Number : **NC-1**Sample : **MW-1**

Matrix : Water

Lab Number : 44646-01

Sample Date :7/5/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	7/7/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	7/7/2005
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	7/8/2005
TPH as Motor Oil (w/ Silica Gel)	170	100	ug/L	M EPA 8015	7/8/2005
Octacosane (Diesel Surrogate)	95.8		% Recovery	M EPA 8015	7/8/2005

Sample : **MW-2**

Matrix : Water

Lab Number : 44646-02

Sample Date :7/5/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	7/7/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	7/7/2005
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	7/8/2005
TPH as Motor Oil (w/ Silica Gel)	220	100	ug/L	M EPA 8015	7/8/2005
Octacosane (Diesel Surrogate)	91.6		% Recovery	M EPA 8015	7/8/2005

Approved By:


Joel Kiff



Report Number : 44646

Date : 7/11/2005

Project Name : **Beaver Lumber**Project Number : **NC-1**Sample : **MW-3**

Matrix : Water

Lab Number : 44646-03

Sample Date :7/5/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	7/7/2005
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	7/7/2005
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	7/8/2005
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	7/8/2005
Octacosane (Diesel Surrogate)	96.2		% Recovery	M EPA 8015	7/8/2005

Sample : **MW-4**

Matrix : Water

Lab Number : 44646-04

Sample Date :7/5/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	7/7/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	7/7/2005
TPH as Diesel (w/ Silica Gel)	110	50	ug/L	M EPA 8015	7/8/2005
TPH as Motor Oil (w/ Silica Gel)	540	100	ug/L	M EPA 8015	7/8/2005
Octacosane (Diesel Surrogate)	94.6		% Recovery	M EPA 8015	7/8/2005

Approved By:


Joel Kiff

Report Number : 44646

Date : 7/11/2005

QC Report : Method Blank Data

Project Name : **Beaver Lumber**

Project Number : **NC-1**

Parameter	Measured Value	Method		Analysis Method	Date Analyzed	Parameter	Measured Value	Method		Analysis Method	Date Analyzed
		Reporting Limit	Units					Reporting Limit	Units		
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	7/6/2005						
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	7/6/2005						
Octacosane (Diesel Surrogate)	101		%	M EPA 8015	7/6/2005						
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005						
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/7/2005						
Toluene - d8 (Surr)	107		%	EPA 8260B	7/7/2005						
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	7/7/2005						

Approved By: 
KIFF ANALYTICAL, LLC
2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 44646

Date : 7/11/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Beaver Lumber**

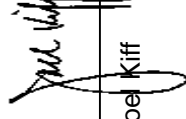
Project Number : **NC-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	44639-07	28	40.0	40.0	65.7	64.9	ug/L	EPA 8260B	7/7/05	94.7	92.6	2.21	70-130	25
Toluene	44639-07	1.6	40.0	40.0	44.2	43.4	ug/L	EPA 8260B	7/7/05	107	105	1.86	70-130	25
TPH as Diesel	Blank	<50	1000	1000	768	875	ug/L	M EPA 8015	7/6/05	76.8	87.5	13.1	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Joel Kiff



Report Number : 44646

Date : 7/11/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : **Beaver Lumber**

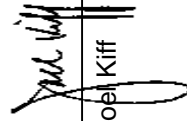
Project Number : **NC-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	7/7/05	92.7	70-130
Toluene	40.0	ug/L	EPA 8260B	7/7/05	108	70-130

KIFF ANALYTICAL, LLC

Approved By:

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



Joel Kiff



2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 44640

Page 1 of 1

Project Contact (Hardcopy or PDF To):

Scott Ferriman

Company/Address: Blue Rock Env. Inc.
535 3rd St, Ste 100 Eureka, CA

Phone No.: (707) 441-1934

FAX No.: (707) 441-1949

Project Number: NC-1

P.O. No:

Project Name: Beaver Lumber

Project Address: 1220 5TH St.

Sample Designation: Arcata, CA

Sampler Signature: James Linderman

Container

Global ID: T-0-6-0-2-3-9-3-1-0-9

EDF Deliverable To (Email Address): scott@bluerockenv.com

EDF Deliverable To (Email Address):

Preservative

EDF Deliverable To (Email Address):

Matrix

EDF Deliverable To (Email Address):

40 ml VOA

EDF Deliverable To (Email Address):

Date

EDF Deliverable To (Email Address):

Time

EDF Deliverable To (Email Address):

Sample

EDF Deliverable To (Email Address):

Date

EDF Deliverable To (Email Address):

Time

EDF Deliverable To (Email Address):

Matrix

EDF Deliverable To (Email Address):

Preservative

EDF Deliverable To (Email Address):

None

EDF Deliverable To (Email Address):

ICE

EDF Deliverable To (Email Address):

HNO₃

EDF Deliverable To (Email Address):

HCl

EDF Deliverable To (Email Address):

SLEEVE

EDF Deliverable To (Email Address):

Container

EDF Deliverable To (Email Address):

Global ID

EDF Deliverable To (Email Address):

EDF Deliverable To (Email Address):

EDF Deliverable To (Email Address):

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California EDF Report? ☒ Yes ☐ No

Recommended but not mandatory to complete this section:

Sampling Company Log Code:

Global ID:

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Chain-of-Custody Record and Analysis Request

Analysis Request

Analysis Request	TAT
TPH as Motor Oil (M8015) <i>Si-gel/clean-up</i>	12 hr/24 hr/48 hr/72 hr/1 wk
TPH as Diesel (M8015) <i>Si-gel/clean-up</i>	
BTEX/TPH Gas/MTBE (8021B/M8015)	
BTEX	
TPH Gas/BTEX/MTBE (8260B)	
5 Oxygenates/TPH Gas/BTEX (8260B)	
7 Oxygenates/TPH Gas/BTEX (8260B)	
5 Oxygenates (8260B)	
7 Oxygenates (8260B)	
Lead Scav. (1.2 DCA & 1.2 EDB - 8260B)	
EPA 8260B (Full List)	
Volatile Halocarbons (EPA 8260B)	
Lead (7421/239.2) TOTAL (X) W.E.T. (X)	

Remarks:

Sample Received
Temp °C 5°C Therm. ID# 12-3
Initial Sub Date 07/06/05
Time 10:45 Coherent present: Y/N

Received by: Fed Ex

Time

Date

Relinquished by: James Linderman

Received by:

Time

Date

Relinquished by:

Bill to:

Received by Laboratory: Kim 1/1/06

Time

Date

Relinquished by: